Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start		Rating **	Α	Issue No.		4	
LM End		Issue Type +	Ма	Location *		N/A	
Category Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Item		s & Maintenaı	nce		0		0
item	Manuals				0		0
DWR ID DWR_RD2089_01_s _ 2013_4							
		Comn	nent Cod	de			
			_				
		Inspecto	or Comm	nent			
The O&M I	Manual is	available at th	e LMA's	office.			

No Photos

Issue No. Rating ** Α LM Start 15 Issue Type + Ма Location * N/A LM End Earthen Levee GPS Latitude/Longitude Category Start End Emergency Supplies & Item Equipment DWR_RD2089_01_s _ 2013_15 DWR ID Comment Code

Inspector Comment

The LMA has flood fighting supplies on-site.

No Photos

Rating ** Issue No. LM Start 34 Location * Issue Type + Ma N/A LM End GPS Latitude/Longitude Earthen Levee Category End Flood Preparedness & Training Item DWR ID DWR_RD2089_01_s _ 2013_34 Comment Code

No Photos

Inspector Comment

The LMA has not attended a flood fight training class in the past few years. They do have an emergency plan.

* Location

LS: Land Side N/A: Not Applicable WS: Water Side

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.00	Rating **	U	Issue No.		24
LM End	1.51	Issue Type +	Ма	Location *		LS
Earthen Levee				GPS La	atitud	e/Longitude
Category				Start		End
Item	Vegetatio	n			0	37.806634°
пеш					0	-121.407885 °
DWR ID DWR_RD2089_01_f _ 2018_24						
		Comn	nent Cod	de		
V1 : Contre easements		grass and wee	ds on th	e levee slo	oes a	and
		Inspecto	or Comm	nent		



Typical view of landward slope. (Fall 2018)

LM Start	0.02	Rating **	U	Issue No.		16		
LM End	1.51	Issue Type +	Ma	Location *	WS			
Category	evee	GPS Latitude/Longitude						
Calegory	alegory					End		
Item	Vegetatio	n		37.8115	47°	37.806633°		
пеш				-121.3852	68°	-121.407885°		
DWR ID DWR_RD2089_01_f _ 2018_16								
	Comment Code							

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

Photo 1 of 1 : FA_2018_RD2089_316_16_20181101_00054.jpg



Looking at typical view of waterward slope. (Fall 2018)

LM Start	0.03	Rating **	U	Issue No.		18	
LM End	0.09	Issue Type +	Ma	Location *	LS		
Category	evee	GPS Latitude/Longitude					
Calegory			Start		End		
Item	Trim / Thi	n Trees		37.8114	98°	37.811236	0
пеш				-121.3854	34°	-121.386544	0
DWR ID	DWR_RD2	089_01_f _ 201	8_18				

Comment Code

T2: Thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment



Looking west at untrimmed trees on landward slope. (Fall 2018)

** Rating
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

** Rating
A: Acceptable
N: Not Inspected/Rated
M: Maintenance Deficiancy
M: Minimally Acceptable
C: Corrected
O: U: Unacceptable
U: Unacceptable
A/W: Acceptable but Monitor & Maintain
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.03	Rating **	M	Issue No.		1
LM End	0.03	Issue Type +	Ма	Location *		LS
Category Earthen Levee				GPS Latitude/Longitude		
Calegory	category			Start		End
Item	Encroach	ments		37.81150	08°	37.811508°
пеш			-121.38546	64 °	-121.385464°	
DWR ID	DWR_RD2	089_01_s _ 201	2_1			

ST : Stairway

Inspector Comment

Comment Code

Steps have been cut into the levee slope, this could become an erosion point, please fill and compact.

LM Start	0.03	Rating **	М	Issue No.	1 (cont)
LM End	0.03	Issue Type +	Ma	Location *	LS

Photo 1 of 2 : FA_2018_RD2089_316_1_20180906_00001.jpg



View of the stairs eroding into the landside levee slope.

Photo 2 of 2: FA_2018_RD2089_316_1_20181101_00056.jpg



View of the stairs eroding into the landside levee slope. (Fall 2018)

LM Start	0.24	Rating **	М	Issue No.		940			
LM End	0.24	Issue Type +	Ма	Location *	LS				
Category Earthen Levee				GPS Latitude/Longitude					
Calegory	ыу			Start		End			
Item	Vegetatio	n		37.8104	12°	37.810412°			
пеш						-121.389115°			
DWR ID	DWR_RD2	089_01_s _ 201	2_940						

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Arundo has been trimmed back from the crown but still remains as an obstruction to the slope and obstructs visibility, needs to be removed.

Photo 1 of 1: FA_2018_RD2089_316_940_20180906_00037.jpg



The LMA is actively trying to remove the vegetation on the landside levee slope and toe.

* Location
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

** Rating
A: Acceptable
N: Not Inspected/Rated
C: Corrected
M: Minimally Acceptable
C: Corrected
U: Unacceptable
AW: Acceptable
AW: Acceptable but Monitor & Maintain

** Rating
A: Issue Type
Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.26	Rating **	М	Issue No.		13	
LM End	0.27	Issue Type +	Ма	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory	alegory			Start		End	
Item	2017 Stor	m Damage		37.8103	00°	37.810300°	
пеш				-121.3893	00°	-121.389500°	
DWR ID DWR_RD2089_01_f _ 2017_13							
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:513

Site Designation:LMA-419 Repair Type: Erosion Rating:Area of Concern Field Date:8/14/2017 Notes: Small erosion at toe.

LM Start	0.26	Rating **	М	Issue No.	13 (cont)
LM End	0.27	Issue Type +	Ма	Location *	



Photo 2 of 2: LEVAL_FA_2018_513_4448.jpg



: Acceptable Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.30	Rating **	U	Issue No.		23		
LM End	0.32	Issue Type +	Ма	Location *		LS		
Earthen Levee				GPS Latitude/Longitude				
Category				Start		End		
Item	Vegetatio	n		37.8101	38°	37.810043°		
item				-121.3900	20°	-121.390343°		
DWR ID DWR_RD2089_01_f _ 2018_23								

Comment Code

 $\ensuremath{\text{V2}}$: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Berryvines and wildrose on landward shoulder and slope blocking view.

Photo 1 of 1: FA_2018_RD2089_316_23_20181101_00057.jpg



Looking at dense berryvines and wildroses on landward shoulder and slope. (Fall 2018)

LM Start	0.33	Rating **	U	Issue No.	19					
LM End	0.33	Issue Type +	Ма	Location *		LS				
Category Earthen Levee				GPS Latitude/Longitude						
Calegory				Start		End				
Item	Vegetatio	n		37.8100	02°	37.810002°				
пеш				-121.3906	74°	-121.390674°				
DWR ID DWR_RD2089_01_s _ 2012_19										

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Arundo is thick and blocks visibility and access.

LM Start	0.33	Rating **	U	Issue No.	19 (cont)
LM End	0.33	Issue Type +	Ma	Location *	LS

Photo 1 of 2: FA_2018_RD2089_316_19_20180906_00015.jpg



View of the arundo back on the landside levee slope. Fall 2016

Photo 2 of 2: FA_2018_RD2089_316_19_20180906_00016.jpg



Arundo was trimmed back from the road and needs to be maintained so that it does not obstruct visibility and access to the landside toe.

** Rating
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating
A: Acceptable A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable CR: Crown

** Rating
A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy
CD: Corrected Ob: Design & System Obsolescence
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.41	Rating **	U	Issue No.		28
LM End	0.46	Issue Type +	Ма	Location *		LS
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory				Start		End
Item	Vegetatio	n		37.80959	3 °	37.809507°
пеш				-121.39196	3°	-121.392907°
DWR ID	DWR_RD2	089_01_s _ 201	2_28			

Comment Code V2: Remove the wild growth other than native grasses from the levee

Inspector Comment

Vegetation is too thick to allow access and visibility. Some thick patches of shrubs remain and continue to block visibility and access.

LM Start	0.41	Rating **	U	Issue No.	28 (cont)
LM End	0.46	Issue Type +	Ma	Location *	LS



05/24/2011 Photo shows thick dead vegetation and continuation of trees in area that are preventing access and visibility of landside slope and toe.

Photo 2 of 2: FA_2018_RD2089_316_28_20181101_00058.jpg



Looking at dense veg on landward slope. (Fall 2018)

LM Start	0.54	Rating **	М	Issue No.	14		
LM End	0.54	Issue Type +	Ma	Location *	CR		
Category Earthen Levee				GPS La	tituc	le/Longitude	
Category	Salegory			Start		End	
Item		rface / Depres	ssions /	37.81008	37°	37.810087°	
пеш	Rutting			-121.39420	00°	-121.394200 °	
DWR ID DWR_RD2089_01_s _ 2012_14							
	Comment Code						

C3: Add appropriate gravel or road base. Grade and compact.

Inspector Comment

11/10/2011 Minor depressions will cause ponding.

Photo 1 of 1: FA_2018_RD2089_316_14_20180906_00013.jpg



11/10/2011 Depressions in crown.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.67	Rating **	A/W	Issue No.		5
LM End	0.67	Issue Type +	Issue Type + Ma I			WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR Ero	sion Survey		37.8097	80°	37.809780°
пеш				-121.3962	30°	-121.396230 °
DWR ID	RD2089U0	1RM29.61				

Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/25/2015: No significant change observed.

07/02/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: The 5-foot vertical scarp shows no significant change from the last year inspection. No new erosion activities observed. Dense white willow trees on site.

09/07/2010: It was difficult to view the erosion due to the thick Willow thickets and other vegetation at the water line. At the time of the inspection, there were no signs of repair on site. As noted during the last survey, there is a 5-foot vertical scarp along the lower slope that may be subjected to high flow velocities.

08/05/2010: Recommended for repair, per CLRO; "Erosion of this site may be subjective to rapid rates of erosion."

09/28/2009: No major change observed; 5-foot vertical scarp is immediately downstream of where berm has tapered; site is recommended as local maintenance issue, per CLRO CES Evaluation 2008 Report; Site # is the same as RM29.6, LM0.60; previously rated "U".

11/05/2008: No change observed; rodent holes on lower slope; wide levee crown. [2017 Site ID:RD2089U01RM29.61]

LM Start	0.67	Rating **	A/W	Issue No.	5 (cont)
LM End	0.67	Issue Type +	Ma	Location *	WS

Photo 1 of 2: FA_2018_RD2089_316_5_20180906_00007.jpg



Front view of the site. The scarp erosion is at the levee slope but is not visible due to the dense begetation at the site.

Photo 2 of 2: FA_2018_RD2089_316_5_20180906_00008.jpg



Front view of the site. Note the very dense white willow thickets on site.

* Location
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

** Rating
A: Acceptable
N: Not Inspected/Rated
C: Corrected
M: Minimally Acceptable
C: Corrected
U: Unacceptable
AW: Acceptable
AW: Acceptable but Monitor & Maintain

** Rating
A: Issue Type
Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.67	Rating **	A/W	Issue No.		20
LM End	0.68	Issue Type +	Ма	Location *		
Supplemental				GPS Latitude/Longitude		
Calegory	Category					End
Item	2017 Stor	m Damage		37.80970	00°	37.809700°
пеш			-121.39630	00°	-121.396400 °	
DWR ID	DWR_RD2089_01_f _ 2017_20					

Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:512

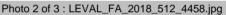
Site Designation:LMA-418

Repair Type: Erosion Rating:Serious Field Date:8/14/2017

Notes: deep erosion more than half way up slope.

LM Start	0.67	Rating **	A/W	Issue No.	20 (cont)
LM End	0.68	Issue Type +	Ma	Location *	







Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.67	Rating **	A/W	Issue No.	20 (cont)		
LM End	0.68	Issue Type +	Ma	Location *			
Supplemental				GPS La	atitud	le/Longitude	
Calegory		Start			End		
Item	2017 Stor	m Damage		37.8097	00°	37.809700°	
пеш				-121.3963	00°	-121.396400°	
DWR ID DWR_RD2089_01_f _ 2017_20							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:512

Site Designation:LMA-418 Repair Type: Erosion Rating:Serious Field Date:8/14/2017

Notes: deep erosion more than half way up slope.



LM Start	0.80	Rating **	М	Issue No.		22	
LM End	0.80	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	titud	e/Longitude	
Calegory				Start		End	
Item	Slope Sta	bility		37.80846	66°	37.808466	0
пеш				-121.39784	۲°	-121.397847	0
DWR ID	DWR_RD2	089_01_f _ 201	6_22				
Comment Code							

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

Inspector Comment

Photo 1 of 1: FA_2018_RD2089_316_22_20180906_00022.jpg



View of the footpath on the landside levee slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.94	Rating **	U	Issue No.		33	
LM End	0.94	Issue Type + Ma		+ Ma Location *		WS	
Catagoni Earthen Levee				GPS La	atitud	e/Longitude	
Category			Start		End		
Item	Vegetatio	n		37.8063	97 °	37.806397°	
item	1			-121.3977	58°	-121.397758°	
DWR ID	DWR ID DWR_RD2089_01_s _ 2012_33						
Comment Code							

V2: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Arundo on waterside impedes visibility and access to waterside slope.

LM Start	0.94	Rating **	U	Issue No.	33 (cont)
LM End	0.94	Issue Type +	Ma	Location *	WS





Re-establishing of Arundo on waterward slope. (Fall 2018)

Photo 2 of 2: FA_2018_RD2089_316_33_20180906_00030.jpg



Arundo was trimmed back and needs to be maintained to allow visibility and access.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.16	Rating **	A/W	Issue No.		30
LM End	1.18	Issue Type +	Ma	Location *		WS
Supplemental				GPS La	atitud	e/Longitude
Calegory	Category					End
Item	2017 Stor	m Damage		37.8056	00°	37.805600°
пеш			-121.4017	00°	-121.401900°	
DWR ID	D DWR_RD2089_01_f _ 2017_30					
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:511

Site Designation:LMA-417

Repair Type: Erosion Rating:Critical Field Date:8/16/2017

Notes: Narrow levee with over steep slope

LM Start	1.16	Rating **	A/W	Issue No.	30 (cont)
LM End	1.18	Issue Type +	Ma	Location *	WS



Photo 2 of 3: LEVAL_FA_2018_511_4303.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.16	Rating **	A/W	Issue No.		30 (cont)
LM End	1.18	Issue Type + Ma Loca		Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory	Category					End
Item	2017 Stor	m Damage		37.80560	00°	37.805600°
пеш				-121.40170	00°	-121.401900°
DWR ID	DWR_RD2	089_01_f _ 201	7_30			·

Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:511

Site Designation:LMA-417 Repair Type: Erosion Rating:Critical Field Date:8/16/2017

Notes: Narrow levee with over steep slope



LM Start	1.17	Rating **	A/W	Issue No.	3		
LM End	1.17	Issue Type +	Ма	Location *	WS		
Supplemental			GPS Latitude/Longitude				
Category				Start		End	
Item	DWR Ero	sion Survey		37.8055	23°	37.805523	0
itein				-121.4017	18°	-121.401718	0
DWR ID	RD2089U0						
Comment Code							

Inspector Comment

09/13/2017: The erosion is at the upstream of a small tree, inside of a slight river bend. [2017 Site ID:RD2089U01RM29.1]

Photo 1 of 3: FA_2018_RD2089_316_3_20180906_00004.jpg



Front view of the erosion. Note the trees next to the erosion site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.17	Rating **	A/W	Issue No.	3 (cont)			
LM End	1.17	Issue Type +	Ma	Location *	WS			
Category				GPS Latitude/Longitude				
Calegory		Start		End				
Item	DWR Ero	sion Survey		37.80552	23 °	37.805523°		
item				-121.40171	18°	-121.401718°		
DWR ID	RD2089U01RM29.1							
Comment Code								

Inspector Comment

09/13/2017: The erosion is at the upstream of a small tree, inside of a slight river bend. [2017 Site ID:RD2089U01RM29.1]

LM Start	1.17	Rating **	A/W	Issue No.	3 (cont)
LM End	1.17	Issue Type +	Ma	Location *	WS



Front view of the erosion.

Photo 3 of 3: FA_2018_RD2089_316_3_20180906_00006.jpg



Front view of the erosion.

LM Start	1.19	Rating **	A/W	Issue No.		25		
LM End	1.19	Issue Type +	Ма	Location *	WS			
Category	Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End		
Item	Vegetatio	n		37.8056	63 °	37.805663°		
item				-121.4021	51 °	-121.402151 °		
DWR ID DWR_RD2089_01_s _ 2016_25						·		

Comment Code

 $\ensuremath{\mathsf{V2}}$: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Arrundo was trimmed back but may creep up the waterside levee slope if not maintained.

Photo 1 of 1: FA_2018_RD2089_316_25_20180906_00023.jpg



View of the Arundo on the waterside slope obstructing visibility. LMA is actively trying to remove the wild growth.

* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating

A: Acceptable N: Not Inspected/Rated C: Corrected M: Minimally Acceptable U: Unacceptable AW: Acceptable but Monitor & Maintain

** Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.22	Rating **	М	Issue No.		43	
LM End	1.22	Issue Type +	Ma	Location *		CR	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Category				Start		End	
Item		rface / Depres	ssions /	37.8057	'35 °	37.805735°	
пеш	Rutting		-121.4026	614°	-121.402614°		
DWR ID	DWR_RD2	089_01_s _ 201	12_43				
		Comn	nent Cod	de			
C3 : Add a	ppropriate	gravel or roa	d base.	Grade and	com	pact.	
		Inspecto	or Comm	nent			
11/10/2011 Depression needs to be filled.							



11/10/2011 Depression in roadway.

LM Start	1.23	Rating **	М	Issue No.	2			
LM End	1.24	Issue Type +	Ma	Location *	WS			
Category				GPS Latitude/Longitude				
Calegory	Category					End		
Item	DWR Ero	sion Survey		37.80558	30°	37.805580°		
пеш				-121.4030°	10°	-121.403010 °		
DWR ID RD2089U01RM29.04								
Comment Code								

Inspector Comment

09/13/2017: No significant change observed. More vegetation observed at the site.

09/16/2016: The river was not navigable near the site due to the dense water grass, so the site was visited by land survey. No significant change observed.

06/25/2015: No significant change observed.

07/02/2014: No significant change observed.

08/13/2013: The erosion is around a tree at the levee toe. Dense vegetation is visible. [2017 Site ID:RD2089U01RM29.04]

Photo 1 of 2: FA_2018_RD2089_316_2_20180906_00002.jpg



Front view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.23	Rating **	М	Issue No.		2 (cont)	
LM End	1.24	Issue Type +	Ма	Location *		WS	
Category	Suppleme	ental		GPS Latitude/Longitude			
Calegory			Start En				
Item	DWR Ero	sion Survey		37.80558	30°	37.805580°	
пеш				-121.40301	0°	-121.403010 °	
DWR ID	RD2089U0	1RM29.04					
Comment Code							

Inspector Comment

09/13/2017: No significant change observed. More vegetation observed at the site.

09/16/2016: The river was not navigable near the site due to the dense water grass, so the site was visited by land survey. No significant change observed.

06/25/2015: No significant change observed. 07/02/2014: No significant change observed.

08/13/2013: The erosion is around a tree at the levee toe. Dense

vegetation is visible. [2017 Site ID:RD2089U01RM29.04]



Close view of the erosion.

LM Start	1.23	Rating **	М	Issue No.		44	
LM End	1.23	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee	GPS Latitude/Longitude				
Category				Start End			
Item		rface / Depres	ssions /	37.8058	01°	37.805801 °	
пеш	Rutting			-121.4029	13°	-121.402913 °	
DWR ID	DWR_RD2089_01_s _ 2012_44						
Comment Code							

C3: Add appropriate gravel or road base. Grade and compact.

Inspector Comment

11/10/2011 Depression in roadway needs to be filled.

Photo 1 of 1: FA_2018_RD2089_316_44_20180906_00033.jpg



11/10/2011 Roadway depression.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.34	Rating **	М	Issue No.		45	
LM End	1.34	Issue Type +	Ма	Location *		CR	
Cotagon Earthen Levee				GPS La	atitud	e/Longitude	
Category				Start		End	
Item		rface / Depres	ssions /	37.8061	28 °	37.806128°	
пеш	Rutting			-121.404890 °		-121.404890 °	
DWR ID	DWR_RD2	089_01_s _ 201	2_45				
		Comn	nent Cod	le			
C3 : Add a	ppropriate	gravel or roa	d base.	Grade and	com	pact.	
		Inspecto	or Comm	ent			
11/10/2011 Depression needs to be filled.							



11//10/2011 Roadway depression.

LM Start	1.40	Rating **	М	Issue No.		47
LM End	1.40	Issue Type +	Ма	Location *		LS
Category	Earthen L	evee	GPS Latitude/Longitude			
Calegory						End
Item	Animal Co	ontrol		37.8062	68 °	37.806268°
пеш				-121.4058	74 °	-121.405874°
DWR ID	DWR_RD2	089_01_s _ 201	2_47			

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

11/10/2011 No rodents visible, but active burrows are present.

Photo 1 of 1 : FA_2018_RD2089_316_47_20180906_00035.jpg



11/10/2011 Active rodent burrow on landside slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.41	Rating **	М	Issue No.		944	
LM End	1.41	Issue Type +	Ма	Location *			
Category	Suppleme	ental		GPS Lat	itud	e/Longitude	
Calegory			Start		End		
Item	DWR UCI	P LMA Respo	onsibility	37.80632	3°	37.806323	0
пеш				-121.40615	5°	-121.406155	0
DWR ID	23045						

Inspector Comment

Comment Code

FS_ID:21585 DS_ID:23045 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - siphon breaker needs repair.

FIELD_STRUCT_DESC: 10-inch steel drainage discharge pipe through the levee, 2.4 feet below the crown. Pump in a drainage ditch on the landside (LS). Siphon breaker on the waterside (WS) shoulder. [Additional Reference(s): DWR Levee Log, 1991].

FS Date: 9/12/2013

LM Start	1.41	Rating **	М	Issue No.	944 (cont)
I M End	1.41	Issue Type +	Ma	Location *	



WS view: exposed steel pipe on levee slope. A pvc pipe on left.

Photo 2 of 3: UCIP_FA_2018_21585_36623.jpg



WS view: exposed steel pipe with siphon breaker. Looks siphon breaker needs repair.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.41	Rating **	М	Issue No.		944 (cont)
LM End	1.41	Issue Type +	Ма	Location *		
Category	Suppleme	ental	GPS Latitude/Longitude			
Calegory						End
Item	DWR UCI	P LMA Respo	nsibility	37.80632	3°	37.806323°
пеш				-121.40615	5°	-121.406155 °
DWR ID	23045					·

Inspector Comment

Comment Code

FS_ID:21585 DS_ID:23045 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - siphon breaker needs repair.

FIELD_STRUCT_DESC: 10-inch steel drainage discharge pipe through the levee, 2.4 feet below the crown. Pump in a drainage ditch on the landside (LS). Siphon breaker on the waterside (WS) shoulder.

[Additional Reference(s): DWR Levee Log, 1991].

FS Date: 9/12/2013



LS view: exposed steel pipe on levee slope.

LM Start	1.44	Rating **	M	Issue No.		49
LM End	1.44	Issue Type +	Ma	Location *		WS
Category	Earthen L	n Levee GPS Latitude/Lor				le/Longitude
Category				Start End		
Item	Animal Co	ontrol		37.8063	83°	37.806383 °
пеш				-121.406599 ° -121.406		
DWR ID	DWR_RD2	089_01_s _ 201	2_49			·

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Deep burrow on waterside needs to be filled.

Photo 1 of 1: FA_2018_RD2089_316_49_20180906_00036.jpg



11/10/2011 Deep burrow on waterside.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.01	Rating **	U	Issue No.		20	
LM End	0.11	Issue Type +	Ma	Location *		LS	
Category	Earthen Levee			GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Vegetation			37.8067	62°	37.807958°	
item				-121.408077 °		-121.409065°	
DWR ID	DWR_RD2	089_02_s _ 201	6_20			·	
		Comn	nent Cod	de			
V2 : Remo slopes.	ve the wild	growth other	than na	tive grasse	s fro	m the levee	
Inspector Comment							

LM Start	0.01	Rating **	U	Issue No.	20 (cont)
LM End	0.11	Issue Type +	Ma	Location *	LS



View of the vegetation on the landside levee slope.

Photo 2 of 2: FA_2018_RD2089_317_20_20181101_00064.jpg



View of dense veg on landward slope. (Fall 2018)

LM Start	0.06	Rating **	U	Issue No.	58		
LM End	0.06	Issue Type +	Ма	Location *	WS		
Category	Earthen Levee			GPS La	atitud	e/Longitude	
Calegory			Start		End		
Item	Vegetation			37.8073	06°	37.807306°	
item			-121.408692 °		-121.408692°		
DWR ID	DWR_RD2	DWR_RD2089_02_s _ 2017_58					
		Comn	nent Cod	de			
V4 : Elderl	perries are	blocking visit	ility and	flood fight	сара	bility.	
		Inspecto	or Comm	nent			
Trim back	the shrub	to allow acces	ss and vi	sibility.			

No Photos

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.07	Rating **	U	Issue No.		4	
LM End	0.07	Issue Type +	Ma	Location *		WS	
Category	Earthen Levee			GPS La	atitud	e/Longitude	
Calegory						End	
Item	Vegetation			37.8073	75°	37.807375 °	
пеш				-121.408605 °		° -121.408605°	
DWR ID	DWR_RD2	089_02_s _ 201	2_4				
		Comn	nent Cod	de			
V4 : Elderk	perries are	blocking visib	ility and	flood fight	capa	bility.	
		Inspecto	or Comm	nent			
Thick brus	h may incl	ude some eld	erberries	3.		-	

No Photos

LM Start	0.16	Rating **	U	Issue No.	No. 48			
LM End	0.16	Issue Type +	Ma	Location *	LS			
Category Earthen Levee				GPS Latitude/Longitude				
Calegory			Start		End			
ltom	Animal Co	ontrol		37.8085	83°	37.808583°		
item	Item			-121.4094	32 °	-121.409432°		
DWR ID	DWR_RD2	3_48			·			
Comment Code								

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment



View of the rodent burrow on the landside levee slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.20	Rating **	М	Issue No.		46
LM End	0.21	Issue Type +	Ма	Location *		
Catagony	Category Supplemental			GPS Latitude/Longitude		
Calegory			Start		End	
Itom	2017 Stor	2017 Storm Damage			00°	37.809200°
item	Item			-121.4098	00°	-121.409900°
DWR ID	DWR_RD2	7_46				
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:509

Site Designation:LMA-415 Repair Type: Erosion Rating:Area of Concern Field Date:8/16/2017

Notes: Displaced riprap at toe.

LM Start	0.20	Rating **	М	Issue No.	46 (cont)
LM End	0.21	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_FA_2018_509_4315.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.20	Rating **	М	Issue No.		46 (cont)
LM End	0.21	Issue Type +	Ма	Location *		
Category			GPS Latitude/Longitude			
Calegory			Start		End	
Itom	2017 Stor	2017 Storm Damage			o°	37.809200°
пеш	Item			-121.40980	o°	-121.409900°
DWR ID	DWR_RD2	7_46				
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:509

Site Designation:LMA-415 Repair Type: Erosion Rating:Area of Concern Field Date:8/16/2017

Notes: Displaced riprap at toe.



LM Start	0.21	Rating **	M	Issue No.		49	
LM End	0.21	Issue Type +	Ma	Location *	LS		
Category	Earthen L	evee		GPS Lat	itud	e/Longitude	
				Start		End	
Item	Animal Control			37.80914	8°	37.809148	0
пеш				-121.40989	7°	-121.409897	0
DWR ID	DWR_RD2	089_02_s _ 201	8_49				

Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Photo 1 of 1: FA_2018_RD2089_317_49_20180906	_00045.jpg
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View of the multiple rodent burrows on the landside levee hinge and slope.

: Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En: Enforcement

A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.26	Rating **	М	Issue No.		24
LM End	0.26	Issue Type +	Ма	Location *		LS
Catagony	Earthen Levee		en Levee		atitud	e/Longitude
Category			Start		End	
Item	Animal Co	ontrol		37.8097	17°	37.809717°
пеш				-121.4105	11 °	-121.410511°
DWR ID	DWR_RD2	089_02_s _ 201	2_24			

Comment Code
A1 : Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Ground squirrel sighted and active burrowing in area.

Photo 1 of 1 : FA_2018_RD2089_317_24_20180906_00023.jpg



05/24/2011 Active burrows, ground squirrel sighted in area.

LM Start	0.28	Rating **	U	Issue No.		51
LM End	0.28	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS La	titud	le/Longitude
Calegory				Start		End
Item	Animal Co	ontrol		37.8098	99°	37.809899°
пеш			-121.4108	89°	-121.410889°	
DWR ID	DWR RD2	089 02 f 201	3 51			

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Photo 1 of 1 : FA_2018_RD2089_317_51_20180906_00049.jpg



View of the rodent burrow on the landside levee toe.

	LM Start	0.30	Rating **	U	Issue No.		53	
	LM End	0.31	Issue Type +	Ma	Location *		LS	
	Catagory	Earthen L	evee		GPS La	atitud	e/Longitude	
	Category				Start		End	
	ltom	Animal Co	ontrol		37.8099	77°	37.810022	0
Item					-121.4111	89°	-121.411387	٥
	DWR ID	DWR RD2	089 02 f 201	3 53				

Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Exterminating rodents and grouting the burrows recommended.

Photo 1 of 3: FA_2018_RD2089_317_53_20180906_00051.jpg



View of the multiple rodent burrows on the landside levee slope.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.30	Rating **	U	Issue No.		53 (cont)		
LM End	0.31	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Category				Start		End		
Animal Control				37.8099	77°	37.810022 °		
пеш				-121.4111	89°	-121.411387°		
DWR ID DWR_RD2089_02_f _ 2013_53								
		Comn	nent Cod	de				
A1 : Exterr	minate rod	ents and back	fill and o	compact or	grou	t burrows.		
		Inspecto	or Comm	nent				
Extermina	ting rodent	s and grouting	the bur	rows recom	nme	nded.		

LM Start	0.30	Rating **	U	Issue No.	53 (cont)
LM End	0.31	Issue Type +	Ma	Location *	LS



View of the rodent burrow on the landside levee slope.

Photo 3 of 3: FA_2018_RD2089_317_53_20180906_00053.jpg



Another view of the multiple rodent burrows on the landside levee slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.32	Rating **	A/W	Issue No.		47
LM End	0.57	Issue Type +	Ma	Location *		
Category	Suppleme	ental	GPS Lat	ituc	le/Longitude	
Calegory			Start		End	
Item	2017 Stor	017 Storm Damage		37.81002	0°	37.811810°
пеш				-121.41155	o°	-121.415390°
DWR ID	DWR_RD2	089_02_f _ 201	7_47			
		Comn	nent Cod	de		

Inspector Comment

Levee Evaluation Comments

Description: Site ID No:109

Site Designation:335-103 Repair Type: Erosion Rating:Area of Concern Field Date:6/7/2017

Notes: vegetation too dense for evaluation

		a. fit	
1			
· ·		4/	
		PMF2:03 JUN/	7/2017

Photo 1 of 3: LEVAL_FA_2018_109_1297.jpg

LM Start	0.32	Rating **	A/W	Issue No.	47 (cont)
LM End	0.57	Issue Type +	Ма	Location *	



U : Unacceptable

N : Not Inspected/Rated
C : Corrected
A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence
En: Enforcement

CR : Crown

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.32	Rating **	A/W	Issue No.	47 (cont)	
LM End	0.57	Issue Type +	Ma	Location *		
Category	ental	GPS Latitude/Longitude				
Calegory				Start End		
Item	2017 Stor	m Damage		37.81002	o°	37.811810°
пеш			-121.41155	o°	-121.415390°	
DWR ID	DWR ID DWR_RD2089_02_f _ 2017_47					
	Comment Code					

Inspector Comment

Levee Evaluation Comments

Description: Site ID No:109

Site Designation:335-103 Repair Type: Erosion Rating:Area of Concern Field Date:6/7/2017

Notes: vegetation too dense for evaluation



LM Start	0.34	Rating **	М	Issue No.	55		
LM End	0.34	Issue Type +	Ma	Location *	LS		
Catagonia Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Trim / Thi	n Trees		37.8100	52°	37.810052°	
item	item				66°	-121.411966 °	
DWR ID DWR_RD2089_02_s _ 2017_55							
Comment Code							

T1 : Trim trees to at least five feet above ground level.

Inspector Comment



View of the overgrown tree on the levee slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.36	Rating **	М	Issue No.	26			
LM End	0.36	Issue Type +	Ma	Location *	LS			
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Category				Start		End		
Item	Animal Co	ontrol		37.8101	25°	37.810125°		
пеш				-121.4123	17°	-121.412317°		
DWR ID	DWR_RD2	089_02_s _ 201	2_26					
		Comn	nent Coc	le				
	A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.							
	Inspector Comment							

Active burrow needs to be repaired.



05/24/2011 Active rodent burrow.

LM Start	0.39	Rating **	U	Issue No.	7	
LM End	0.39	Issue Type +	Ma	Location *		CR
Earthen Levee				GPS Latitude/Longitude		
Calegory	Category					End
Item	Crown Surface / Depressions /			37.8101	40°	37.810140°
Rutting				-121.4129	06°	-121.412906°
DWR ID DWR_RD2089_02_f _ 2018_7						

Comment Code

C2: Repair depressions or ruts in the crown or slope.

Inspector Comment

Large depression on levee crown.

Photo 1 of 1: FA_2018_RD2089_317_7_20181101_00065.jpg



View of depresson greater that six inches on levee crown. (Fall 2018)

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.39	Rating **	A/W	Issue No.	50		
LM End	0.41	Issue Type +	Ma	Location *			
Supplemental				GPS Latitude/Longitude			
Calegory				Start End			
Item	2017 Stor	m Damage		37.8101	50°	37.810270°	
пеш				-121.4129	30°	-121.413240 °	
DWR ID DWR_RD2089_02_f _ 2017_50							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:508

Site Designation:LMA-414 Repair Type: Erosion

Rating:Serious Field Date:8/16/2017

Notes: Large erosion around tree with a 12' vertical cut.

LM Start	0.39	Rating **	A/W	Issue No.	50 (cont)
LM End	0.41	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_FA_2018_508_4323.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.39	Rating **	A/W	Issue No.	50 (cont)	
LM End	0.41	Issue Type +	Ma	Location *		
Category	ental	GPS Latitude/Longitude				
Calegory				Start End		
Item	2017 Stor	m Damage		37.8101	50°	37.810270°
пеш				-121.4129	30°	-121.413240°
DWR ID DWR_RD2089_02_f _ 2017_50						
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:508

Site Designation:LMA-414 Repair Type: Erosion Rating:Serious Field Date:8/16/2017

Notes: Large erosion around tree with a 12' vertical cut.



Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.40	Rating **	A/W	Issue No.		1
LM End	0.41	Issue Type +	Ма	Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory			Start		End	
Item	DWR Ero	sion Survey		37.8099	60°	37.809960°
item				-121.4132	00°	-121.413200°
DWR ID	RD2089U0	2RM28.35				

Inspector Comment

Comment Code

09/13/2017: No significant change observed.

09/26/2016: The erosion site was visited by land survey instead of water surface survey due to the dense water grass in the river this year. No significant change observed.

06/25/2015: No significant change observed.

07/02/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed.

08/23/2011: No significant change observed on site.

09/07/2010: Site consists of a jutting rip rap that has created an eddy, scouring the levee slope. Most sections of the toe and lower slope are lined with rip rap. However, the rip rap is sloughing on the mid slope and at the toe, exposing the underlying soils and tree roots. The remaining revetment is no longer adequately protecting the slope. There are 3 Sycamore trees at the toe with exposed tree roots.

08/05/2010: Recommended for repair, per CLRO.

09/28/2009: Pocket erosion on lower slope just above the toe rip rap: protruding rip rap upstream is creating an eddy, scouring the levee slope; Site # is the same as RM28.40,LM0.30; previously rated "U"; pictures will be made available during the next survey.

11/05/2008: Cut into levee profile; riprap slide; rodent holes; pictures do not match GPS and current condition. [2017 Site ID:RD2089U02RM28.35]

LM Start	0.40	Rating **	A/W	Issue No.	1 (cont)
LM End	0.41	Issue Type +	Ma	Location *	WS

Photo 1 of 3: FA_2018_RD2089_317_1_20180906_00001.jpg



Front view of the site.

Photo 2 of 3: FA_2018_RD2089_317_1_20180906_00002.jpg



Close view of the erosion.

Location + Issue Type LS: Land Side N/A: Not Applicable Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy Minimally Acceptable Ob : Design & System Obsolescence WS: Water Side C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.40	Rating **	A/W	Issue No.		1 (cont)
LM End	0.41	Issue Type +	Ма	Location *		WS
Category	Suppleme	ental		GPS La	titud	e/Longitude
Category			Start		End	
Item	DWR Ero	sion Survey		37.80996	60°	37.809960°
item				-121.41320	00°	-121.413200°
DWR ID	RD2089U0	2RM28.35				

Inspector Comment

Comment Code

09/13/2017: No significant change observed.

09/26/2016: The erosion site was visited by land survey instead of water surface survey due to the dense water grass in the river this year. No significant change observed.

06/25/2015: No significant change observed.

07/02/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed.

08/23/2011: No significant change observed on site.

09/07/2010: Site consists of a jutting rip rap that has created an eddy, scouring the levee slope. Most sections of the toe and lower slope are lined with rip rap. However, the rip rap is sloughing on the mid slope and at the toe, exposing the underlying soils and tree roots. The remaining revetment is no longer adequately protecting the slope.

There are 3 Sycamore trees at the toe with exposed tree roots.

08/05/2010: Recommended for repair, per CLRO.

09/28/2009: Pocket erosion on lower slope just above the toe rip rap; protruding rip rap upstream is creating an eddy, scouring the levee slope; Site # is the same as RM28.40,LM0.30; previously rated "U"; pictures will be made available during the next survey.

11/05/2008: Cut into levee profile; riprap slide; rodent holes; pictures do not match GPS and current condition. [2017 Site ID:RD2089U02RM28.35]

Photo 3 of 3 : FA_2018_	RD2089_317_1_20180906_00003
	MAN TO SERVICE STATE OF THE PARTY OF THE PAR

Close view of the erosion.

LM Start	0.43	Rating **	М	Issue No.		63		
LM End	1.31	Issue Type +	Ma	Location *	WS			
Category	Earthen Levee			GPS Latitude/Longitude				
Calegory			Start		End			
Item	Vegetation			37.8104	53°	37.819111°		
item			-121.4135	32°	-121.419801 °			
DWR ID	DWR_RD2089_02_s _ 2018_63							
Comment Code								

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Appli	cable A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.43	Rating **	М	Issue No.		62		
LM End	0.93	Issue Type +	Ma	Location *		LS		
Category	Earthen Levee			GPS Latitude/Longitude				
Calegory			Start		End			
Item	Vegetation			37.8104	53°	37.814923°		
item			-121.4135	33 °	-121.416290°			
DWR ID	DWR_RD2	089_02_s _ 201						
Comment Code								

V2: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



View of wild growth on the partially visible landside slope. Spring 2018.

LM Start	0.46	Rating **	М	Issue No.		13
LM End	0.46	Issue Type +	Ma	Location *		CR
Category	Earthen L	evee		GPS La	titud	e/Longitude
Calegory			Start		End	
Item	Animal Co	ontrol		37.8106	91 °	37.810691°
пеш			-121.4140	14°	-121.414014°	
DWR ID	DWR_RD2	089_02_s _ 201	2_13			

Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Two old burrows that need to be filled.

Photo 1 of 1: FA_2018_RD2089_317_13_20180906_00014.jpg



11/10/2011 Two large burrows on crown, need to be filled.

LM Start	0.47	Rating **	М	Issue No.		10	
LM End	0.47	Issue Type +	Ma	Location *		CR	
Category	Earthen L	evee		GPS La	titud	e/Longitude	
Calegory				Start		End	
Item		rface / Depres	ssions /	37.8107	14°	37.810714	0
item	Rutting			-121.4140	57°	-121.414057	0
DWR ID	DWR RD2	089 02 s 201	2 10				

Comment Code

C3: Add appropriate gravel or road base. Grade and compact.

Inspector Comment

Surface depression needs to be filled.

Photo 1 of 1: FA_2018_RD2089_317_10_20180906_00010.jpg



11/10/2011 Depression in crown needs to be filled.

Location LS: Land Side

N/A: Not Applicable

WS: Water Side

: Acceptable : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated

C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.50	Rating **	U	Issue No.	54	
LM End	0.50	Issue Type +	Ma	Location *		LS
Category Earthen Levee				GPS La	atitud	e/Longitude
				Start		End
Item	Animal Co	ontrol		37.810989°		37.810989°
item				-121.4145	17°	-121.414517°
DWR ID DWR_RD2089_02_f _ 2013_54						
Comment Code						
A1 · Extorr	minata rad	onte and back	fill and o	compact or	arou	t hurrowe

A1 : Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment



View of the rodent burrow on the landside levee slope.

LM Start	0.52	Rating ** U		Issue No.		14	
LM End	0.52	Issue Type +	Issue Type + Ma			WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Animal Co	ontrol		37.8111	50°	37.811150	>
пеш				-121.4147	48 °	-121.414748	>
DWR ID	DWR_RD2089_02_s _ 2012_14						

Comment Code

A2 : Repair the levee slope damaged by livestock and prevent large animal access.

Inspector Comment

11/10/2011 Repair damage to slope caused by livestock.

Photo 1 of 1 : FA_2018_RD2089_317_14_20180906_00015.jpg



11/10/2011 Approximately 1' scarp has been created by livestock travel.

Photo 1 of 4: FA_2018_RD2089_317_35_20180906_00028.jpg

LM Start	0.54	Rating **	М	Issue No.		35
LM End	0.54	Issue Type + Ma Location * C				CR
Category	Catagory Earthen Levee					le/Longitude
Calegory				Start		End
Item		rface / Depres	ssions /	37.8113	82°	37.811382°
пеш	Rutting			-121.4150	54°	-121.415054°
DWR ID	R ID DWR_RD2089_02_f _ 2015_35					
Comment Code						

C2: Repair depressions or ruts in the crown or slope.

Inspector Comment



View of the levee crown depression looking upstream.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

		D (' ++		I NI		()	
LM Start	0.54	Rating **	М	Issue No.		35 (cont)	
LM End	0.54	Issue Type +	Ma	Location *		CR	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Category				Start		End	
Crown Surface / Depressions /				37.8113	82 °	37.811382 °	
пеш	Rutting			-121.415054°		-121.415054°	
DWR ID	DWR ID DWR_RD2089_02_f _ 2015_35						
		Comn	nent Cod	de			
C2 : Repai	r depressi	ons or ruts in	the crow	n or slope.			
		Inspecto	or Comm	nent			

LM Start	0.54	Rating **	М	Issue No.	35 (cont)
LM End	0.54	Issue Type +	Ma	Location *	CR



View of the levee crown depression looking downstream.

Photo 3 of 4: FA_2018_RD2089_317_35_20180906_00030.jpg



View of the levee crown depression looking to the landside.

LM Start	0.54	Rating **	М	Issue No.	35 (cont)
LM End	0.54	Issue Type +	Ма	Location *	CR



View of the levee crown depression looking to the waterside.

*Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating

A: Acceptable A: Not Inspected/Rated M: Minimally Acceptable CR: Corrected U: Unacceptable U: Unacceptable U: Unacceptable AW: Acceptable but Monitor & Maintain Enforcement

* Issue Type

Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.60	Rating **	A/W	Issue No.		56
LM End	0.61	Issue Type +	Ма	Location *		
Category	ental	GPS La	tituc	le/Longitude		
Calegory	Category					End
Item	2017 Stor	m Damage		37.8120	00°	37.812100 °
пеш				-121.4157	00°	-121.415900 °
DWR ID	R ID DWR_RD2089_02_s _ 2018_56					
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:507

Site Designation:LMA-413 Repair Type: Erosion Rating:Serious

Field Date:8/16/2017

Notes: Vertical cut on outside bend of river

LM Start	0.60	Rating **	A/W	Issue No.	56 (cont)
LM End	0.61	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_FA_2018_507_4336.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.60	Rating **	A/W	Issue No.	56 (cont)		
LM End	0.61	Issue Type +	Ma	Location *			
Category	ental	GPS La	tituc	le/Longitude			
Calegory	Category					End	
Item	2017 Stor	m Damage		37.8120	00°	37.812100°	
пеш				-121.4157	00°	-121.415900°	
DWR ID DWR_RD2089_02_s _ 2018_56							
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:507

Site Designation:LMA-413 Repair Type: Erosion Rating:Serious Field Date:8/16/2017

Notes: Vertical cut on outside bend of river



LM Start	0.76	Rating **	М	Issue No.	15				
LM End	0.76	Issue Type +	Ма	Location *	LS				
Category Earthen Levee				GPS Latitude/Longitude					
Calegory				Start		End			
Item	Erosion /	Bank Caving		37.81393	4°	37.813934	٥		
пеш				-121.41432	o°	-121.414320	٥		
DWR ID DWR_RD2089_02_f _ 2014_15									
	0								

Comment Code

E2: Schedule repair of erosion site prior to the next inspection.

Inspector Comment

Photo 1 of 1: FA_2018_RD2089_317_15_20180906_00016.jpg



View of the scour from surface runoff on the landside levee slope.

N: Not Inspected/Rated C : Corrected

+ Issue Type Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence A/W : Acceptable but Monitor & Maintain En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.83	Rating **	М	Issue No.		21
LM End	0.83	Issue Type +	Ма	Location *		WS
Earthen Levee				GPS Latitude/Longitude		
Calegory	Category			Start		End
Item	Animal Co	ontrol		37.81477	'3 °	37.814773°
пеш				-121.41455	5 °	-121.414555 °
DWR ID	DWR ID DWR_RD2089_02_s _ 2012_21					

Comment Code

A2: Repair the levee slope damaged by livestock and prevent large animal access.

Inspector Comment

Livestock have worn paths into levee slope.

0.83 Rating ** Issue No. LM Start M 38 Issue Type + Location * WS LM End 0.83 Ma Earthen Levee GPS Latitude/Longitude Category Start Fnd **Animal Control** 37.814844° 37.814844° Item -121.414566° -121.414566 ° DWR_RD2089_02_s _ 2012_38 DWR ID

Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Active burrows present.

No Photos

No Photos

Rating ** Issue No. LM Start 0.84 25 0.84 Issue Type + Ma Location * LS LM End Earthen Levee GPS Latitude/Longitude Category Start End Vegetation 37.814906° 37.814906° Item -121.414745° -121.414745° DWR ID DWR_RD2089_02_s _ 2012_25

Comment Code

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Elderberry and blackberry on levee slope.

No Photos

Page 19 of 26

En: Enforcement

* Location + Issue Type A : Acceptable M : Minimally A Ma : Maintenance Deficiancy N/A: Not Applicable LS: Land Side N : Not Inspected/Rated WS: Water Side Minimally Acceptable C : Corrected Ob : Design & System Obsolescence

A/W : Acceptable but Monitor & Maintain

U : Unacceptable

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.84	Rating **	М	Issue No.		42	
LM End	0.84	Issue Type +	Ма	Location *	LS		
Category	Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End	
Item	Slope Sta	bility		37.81493	1°	37.814931 °	
пеш				-121.41475	3°	-121.414756°	
DWR ID	DWR_RD2089_02_f _ 2016_42						

Comment Code

S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment

Ramp is encroaching into the levee slope. Add appropriate material to stabilize the slope.

Photo 1 of 1: FA_2018_RD2089_317_42_20180906_00037.jpg



View of the ramp on the landside levee slope.

LM Start	0.85	Rating **	U	Issue No.		40
LM End	0.90	Issue Type +	Ма	Location *		LS
Category	Earthen Levee				atitud	e/Longitude
Calegory	Category			Start		End
Item	Animal Co	ontrol		37.8149	97°	37.814970°
пеш				-121.4147	74°	-121.415767°
DWR ID	DWR_RD2089_02_s _ 2012_40					

Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Numerous burrows on landside slope adjacent to hay storage area. Deep burrows in crown and landside ramp.

LM Start	0.85	Rating **	U	Issue No.	40 (cont)
LM End	0.90	Issue Type +	Ma	Location *	LS

Photo 1 of 3: FA_2018_RD2089_317_40_20180906_00033.jpg



05/24/2011 Deep vertical burrow in ramp on land side of levee.

Photo 2 of 3: FA_2018_RD2089_317_40_20180906_00034.jpg



05/24/2011 Deep vertical burrow in levee crown.

* Location

LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown

** Rating

A : Acceptable N : Not Inspected/Rated M: Minimally Acceptable CR : Corrected U: Unacceptable A/W : Acceptable but Monitor & Maintain

** Rating

A : Not Applicable M: Not Inspected/Rated M: Minimally Acceptable D: C: Corrected Ob: Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	0.85	Rating **	U	Issue No.		40 (cont)
LM End	0.90	Issue Type +	Ма	Location *		LS
Category	Catagoni Earthen Levee			GPS Latitude/Longitude		
Calegory	Category			Start		End
Item	Animal Co	ontrol		37.8149	97°	37.814970°
пеш			-121.4147	74°	-121.415767°	
DWR ID	DWR_RD2089_02_s _ 2012_40					

Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Numerous burrows on landside slope adjacent to hay storage area. Deep burrows in crown and landside ramp.

Photo 3 of 3: FA_2018_RD2089_317_40_20180906_00035.jpg



View of the multiple rodent holes on the landside levee slope.

LM Start	0.91	Rating **	М	Issue No.		22
LM End	0.91	Issue Type +	Ма	Location *		LS
Category	Earthen Levee				titud	e/Longitude
Calegory	negory			Start		End
Item	Animal Co	ontrol		37.8149	03 °	37.814903°
пеш				-121.4158	87°	-121.415887°
DWR ID	DWR_RD2089_02_s _ 2015_22					

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

No Photos

	LM Start	0.94	Rating **	M	Issue No.		41		
	LM End	0.94	Issue Type +	Ma	Location *	WS			
	Category	Earthen L	evee		GPS Latitude/Longitude				
	Calegory				Start		End		
	Item	Encroach	ments		37.8149	40°	37.814940	0	
	item		-121.4164	99°	-121.416499	0			
DWR ID DWR_RD2089_02_s _ 2012_41									
	Comment Code								

PI : Pipe

Inspector Comment

Debris/CMP on levee slope needs to be removed.



05/24/2011 Old CMP left on waterside levee slope, needs to be removed.

** Rating
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

** Rating
A: Acceptable
N: Not Inspected/Rated
N: Not Inspected/Rated
C: Corrected
N: Not Inspected/Rated
C: Corrected
N: Not Inspected/Rated
C: Corrected
N: Minimally Acceptable
C: Corrected
N: Minimally Acceptable
N: Not Inspected/Rated
C: Corrected
N: Monitor & Maintain
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

11100	0.95	Rating **	U	Issue No.		E			
LM Start	0.95	Rating	U	issue ivo.		<u> </u>			
LM End	0.95	Issue Type +	Ma	Location *		LS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude			
Category				Start		ude/Longitude End 37.814915 -121.416606			
Item	Animal Co	ontrol		37.814915 ° 37.8149					
пеш				-121.416606° -121.41660					
DWR ID	DWR_RD2	089_02_s _ 201	4_5						
		Comn	nent Cod	de					
A1 : Exterr	minate rod	ents and back	fill and o	compact or	grou	t burrows.			
		Inspecto	or Comm	nent					

Photo 1 of 1 : FA_2018_RD2089_317_5_20180906_00005.jpg



View of the rodent holes on the landside levee slope.

LM Start	1.00	Rating **	U	Issue No.		12	
LM End	1.00	.00 Issue Type + Ma		Location *		CR	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Animal Co	ontrol		37.8151	82°	37.815182°	
item			-121.417439 °		-121.417439°		
DWR ID	DWR_RD2089_02_f _ 2014_12						

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

LM Start	1.00	Rating **	U	Issue No.	12 (cont)
LM End	1.00	Issue Type +	Ma	Location *	CR

Photo 1 of 2: FA_2018_RD2089_317_12_20180906_00012.jpg



View of several large rodent holes on the levee crown.

Photo 2 of 2: FA_2018_RD2089_317_12_20180906_00013.jpg



View of several rodent burrows on landside levee hinge and crown.

* Location
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating
A: Acceptable N: Not Inspected/Rated M: Ma: Maintenance Deficiancy
C: Corrected Ob: Design & System Obsolescence
U: Unacceptable A/W: Acceptable but Monitor & Maintain

** Rating
A: Acceptable M: N: Not Inspected/Rated M: Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.05	Rating **	N	Issue No.		29		
LM End	1.05	Issue Type +	Ma	Location *	WS			
Category	Earthen L		GPS Latitude/Longitude					
Calegory			Start End					
Item	Trim / Thin Trees 37.815629 ° 3				37.815629°			
пеш				-121.418133° -121.418				
DWR ID	DWR ID DWR_RD2089_02_s _ 2012_29							
Comment Code								

T5: Tree stumps.

Inspector Comment

14" dia stump. Could not verify as the area is overgrown with high weeds.

Photo 1 of 1: FA_2018_RD2089_317_29_20180906_00027.jpg



Tree stump >2" left after vegetation and tree removal.

LM Start	1.08	Rating **	М	Issue No.		17			
LM End	1.08	Issue Type +	Ma	Location *	WS				
Category	Earthen L	GPS Latitude/Longitude							
Calegory				Start		End			
Item	Encroach	ments		37.816025 ° 37.8160					
пеш					44 °	-121.418544°			
DWR ID	VR ID DWR_RD2089_02_s _ 2012_17								

Comment Code

DE: Debris

Inspector Comment

Water tanks disposed of on levee are obstructive.

Photo 1 of 1: FA_2018_RD2089_317_17_20180906_00018.jpg



View of water tanks disposed on waterside slope.

LM Start	1.12	Rating **	М	Issue No.		30		
LM End	1.12	Issue Type +	Ма	Location *		WS		
Category	Earthen L	GPS Latitude/Longitude						
Calegory				Start		End		
Item	Vegetatio	n		37.8165	514° 37.816514			
пеш				-121.418948 ° -121.418948				
DWR ID DWR_RD2089_02_s _ 2012_30								
Comment Code								

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

No Photos

* Location

LS : Land Side N/A : Not Applicable

WS : Water Side N/A : Not A

** Ra

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.18	Rating **	М	Issue No.	6				
LM End	1.18	Issue Type +	Ма	Location *	LS				
Category	Earthen L	evee	vee			GPS Latitude/Longitude			
Calegory				Start End					
Item	Animal Co	ontrol		37.817271 ° 37.8172					
пеш				-121.4193					
DWR ID	DWR_RD2089_02_s _ 2014_6								
Comment Code									

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment



View of the large rodent hole on the landside levee slope.

LM Start	1.24	Rating **	U	Issue No.	31			
LM End	1.24	Issue Type +	Ma	Location *	WS			
Category	Earthen L	evee	GPS Latitude/Longitude					
Calegory				Start	End			
Item	Vegetatio	n		37.81805	51 °	37.818051°		
item				-121.419743 ° -121.41974				
DWR ID DWR_RD2089_02_s _ 2012_31								
Comment Code								

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Trim back the shrub to allow access and visibility.

No Photos

LM Start	1.24	Rating **	U	Issue No.		28	
LM End	1.24	Issue Type +	Ma	Location *		LS	
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End	
Animal Control				37.8181	12°	37.818112	٥
item				-121.4197	20°	-121.419720	٥
DWR ID	DWR ID DWR_RD2089_02_f _ 2016_28						
Comment Code							

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment



View of the rodent burrow in the landside levee slope.

Location

N/A: Not Applicable

LS: Land Side WS: Water Side

A : Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated

C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy Ob : Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.26	Rating **	U	Issue No.		33	
LM End	1.26	Issue Type +	Ма	Location *		CR	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Item	Trim / Thin Trees			37.8184	08°	37.818408°	
пеш				-121.419738°		-121.419738°	
DWR ID	DWR_RD2089_02_f _ 2018_33						
Comment Code							

T4: Trim trees over roadway to at least 12 feet above ground level.

Inspector Comment

Tree on landward slope overhanging crown of levee.



Looking west at trees overhanging crown of levee. (Fall 2018)

LM Start	1.29	Rating **	U	Issue No.		19
LM End	1.29	Issue Type +	Ma	Location *		LS
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory			Start		End	
Item	Animal Control			37.8187	40°	37.818740°
пеш					59°	-121.419759°
DWR ID	DWR_RD2089_02_f _ 2016_19					

Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment



View of the rodent burrow in the landside levee slope.

LM Start	1.29	Rating **	A/W	Issue No.		32	
LM End	1.29	Issue Type +	Ma	Location *		WS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Item	Vegetatio	n		37.8188	29°	37.818829	0
пеш				-121.4197	76°	-121.419776	0
DWR ID	DWR_RD2	089_02_s _ 201	2_32				

Comment Code

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

No Photos

* Location					
* Location LS : Land Side WS : Water Side CR : Crown					
WS: Water Side					
CR : Crown					

N/A: Not Applicable

: Acceptable : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

A/W : Acceptable but Monitor & Maintain En: Enforcement

+ Issue Type Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	10/31/2018 10/31/2018	Richard Willoughby

LM Start	1.29	Rating **	N	Issue No.		18	
LM End	1.29	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS L	atitud	e/Longitude	
Calegory			Start		End		
Trim / Thin Trees				37.8188	343°	37.818843°	
item	Item				'62 °	-121.419762°	
DWR ID DWR_RD2089_02_f _ 2016_18							
Comment Code							
T5 : Tree s	stumps.						
Inspector Comment							

Photo 1 of 1: FA_2018_RD2089_317_18_20180906_00019.jpg



View of the tree stump from the levee crown.

LM Start	1.30	Rating **	U	Issue No.		16	
LM End	1.30	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Item	Animal Control			37.8189	87°	37.818987°	
пеш				-121.4197	67°	-121.419767°	
DWR ID	DWR_RD2089_02_s _ 2015_16						

Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Photo 1 of 1: FA_2018_RD2089_317_16_20180906_00017.jpg



View of the rodent burrow in the landside levee slope.

LM Start	1.33	Rating **	U	Issue No.		11		
LM End	1.33	Issue Type +	Ма	Location *		LS		
Category	Category Earthen Levee				GPS Latitude/Longitude			
Category				Start		End		
Item	Animal Co	ontrol		37.81937	'1 °	37.819371	0	
пеш				-121.41977	'4 °	-121.419774	0	
DWR ID	DWR_RD2	089_02_f _ 201	4_11					

Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Some of the rodent hole openings have collapsed.



View of the multiple rodent burrows on the landside levee slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement